Fig.1

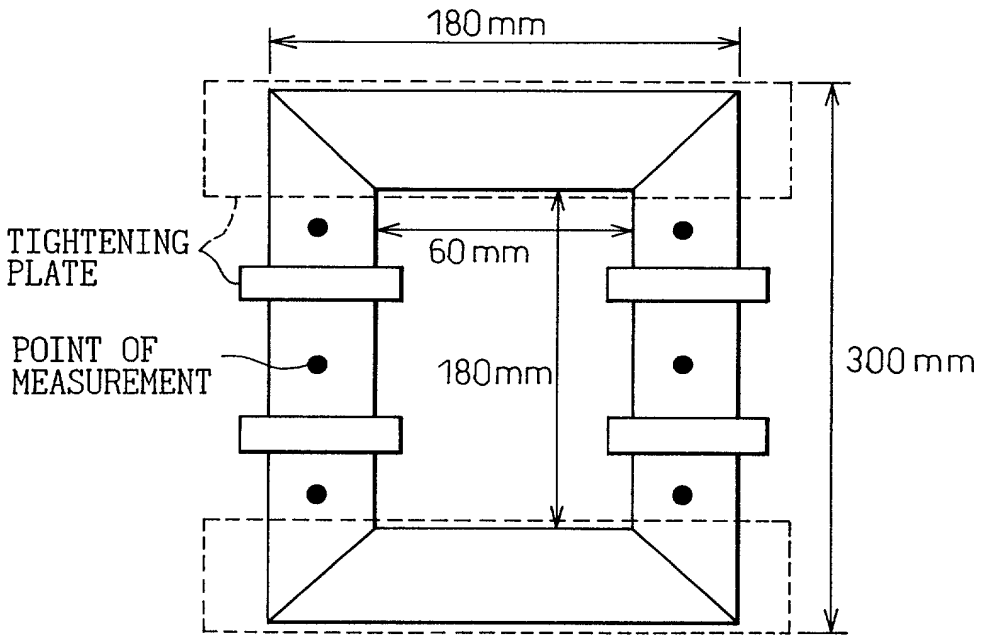

180 mm
60 mm
180mm
300 mm
TIGHTENING PLATE
POINT OF MEASUREMENT

Fig.2

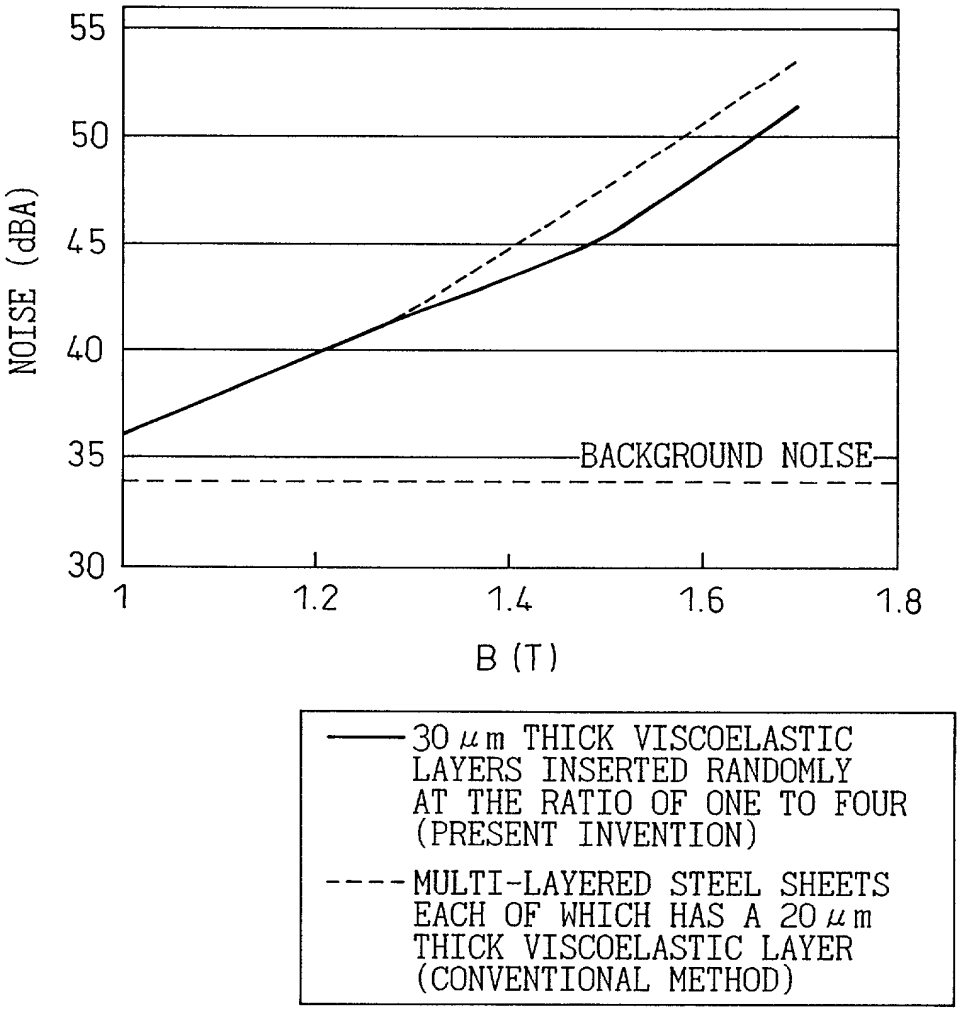
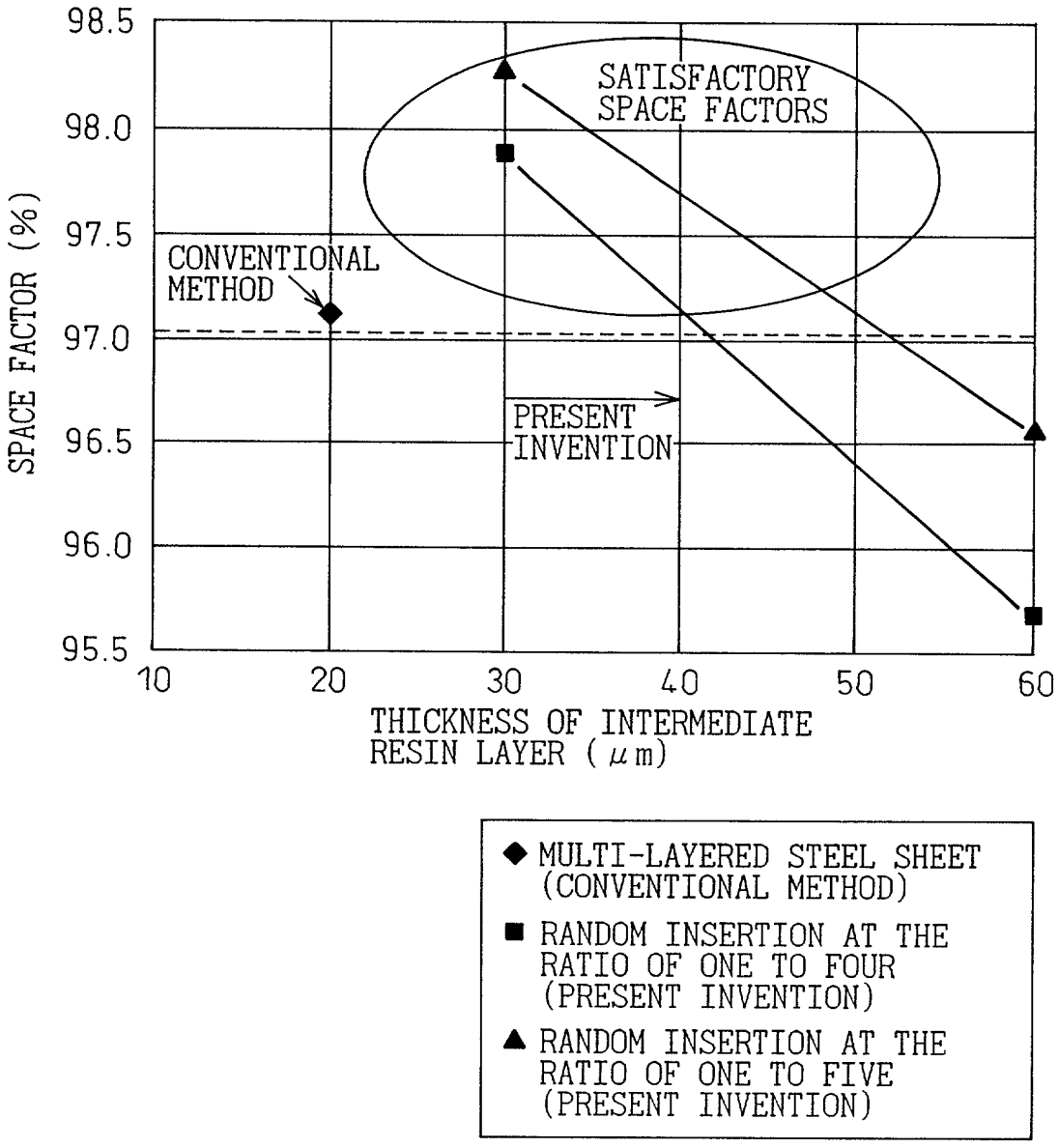

55
50
45
40
35
30
NOISE (dBA)
BACKGROUND NOISE
1
1.2
1.4
1.6
1.8
B (T)
30 μm THICK VISCOELASTIC LAYERS INSERTED RANDOMLY AT THE RATIO OF ONE TO FOUR (PRESENT INVENTION)
MULTI-LAYERED STEEL SHEETS EACH OF WHICH HAS A 20 μm THICK VISCOELASTIC LAYER (CONVENTIONAL METHOD)

Fig.3


98.5
98.0
97.5
97.0
96.5
96.0
95.5
SPACE FACTOR (%)
SATISFACTORY
SPACE FACTORS
CONVENTIONAL
METHOD
PRESENT
INVENTION
10
20
30
40
50
60
THICKNESS OF INTERMEDIATE
RESIN LAYER (μm)
◆ MULTI-LAYERED STEEL SHEET
(CONVENTIONAL METHOD)
■ RANDOM INSERTION AT THE
RATIO OF ONE TO FOUR
(PRESENT INVENTION)
▲ RANDOM INSERTION AT THE
RATIO OF ONE TO FIVE
(PRESENT INVENTION)